

## REMARKS/ARGUMENTS

By action taken here, Applicants in no way intend to surrender any range of equivalents beyond that needed to patentably distinguish the claimed invention as a whole over the prior art. Applicants expressly reserve all such equivalents that may fall in the range between Applicants' literal claim recitations and combinations taught or suggested by the prior art.

### **I. In the Specification**

The Examiner has objected to the title of the invention because it is too long. Specifically, the Examiner stated that,

"The title of the invention should be modified by deleting "integrated system and method for electronic" since these terms are so generic that they merely obfuscate the invention by adding unnecessary verbiage."

The Applicants hereby comply with the Examiner's suggestion and amend the title to read: SPEECH RECOGNITION AND TRANSCRIPTION AMONG USERS HAVING HETEROGENEOUS PROTOCOLS.

### **II. Prior Claim Rejection under 35 U.S.C. §103**

Claims 1-17 are now rejected under 35 U.S.C. § 103 as being unpatentable over Cilurzo (6,434,526) in view of Tanenbaum ("Computer networks").

It should be noted that in the first Office Action Tanenbaum was not referenced. Specifically, in the rejection of July 15, 2004 the Examiner argued,

"Claims 1-17 are rejected under 35 U.S.C. § 103 as being unpatentable over Cilurzo (6,434,526). "Facilitating the exchange of speech recognition and transcription" is taught by Cilurzo with his speech server 300, figure 3:

"at least one system transaction manager... one of the users employing a first system protocol.. more of the users employing a second system protocol that may be the same or different" (taught by his network server 202, figure 3); and

"at least one speech recognition and transcription engine" (taught by his speech manager 300 and speech engine 304 which facilitate speech recognition to be communicated to the user or users as necessary over the network)."

It is noted that Cilurzo does not explicitly use the term "speech information request". However, he teaches it is an object of the present invention to provide, on a network, specific application software with a speech recognition capability (col. 2, lines 46-48). It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to combine Cilurzo's system with a variety of requests for information because he teaches that his system is for use with any type of application software and computers are capable of handling and providing a great variety of information such as his teachings of radiology (col. 1, line 65-col.2, line 5), Lotus Notes (col. 5, line 21), medical information (col. 5, line 34) or chat sessions (col. 6, line 2). Thus, it would have

been obvious to use speech recognition for requests of any information that a computer may manipulate because Cilurzo provides examples to include radiology or more general medical information as well as information that humans send to each other using other software such as Lotus Notes or chat software.

Claims 2-13 are directed towards handling speech information for routing to one or more users. This is inherent in the chat session usage suggested by Cilurzo in column 6. As one of ordinary skill in the art is aware, a chat session may initiated by any user and may involve one or more additional users online regardless of the type of computer they are using.

Claim 14: See claim 1 above. A "uniform system protocol" is inherent in any network based system. Failure to provide a uniform protocol will make a network unstable and unusable for desired communications.

Claim 15: See claim 1 above. The claimed "second user application" is stated to be "the same or different than the first user application" and is therefore a transparent limitation. While Cilurzo clearly teaches that more than one desired application is obvious, this claim does not require more than one since the two are explicitly claimed in such a way that they may be one which allows more than one user.

Claims 16 and 17: See claim 1 above. The claimed "exchanging transcribed spoken text" is an obvious application of the chat sessions noted above. It is noted that the applicant claims that two protocols may be the same. Furthermore, even if the claims said that the protocols were different, the specification fails to teach any unique protocols. Thus, the claimed protocol can only be read on obvious prior art protocols that are suggested by Cilurzo's suggested use of proprietary intranet network 200 (fig. 3) as well as uniform protocols such as used on the internet allowing communication with different users employing different combinations of hardware and software (col. 3, lines 28-36 and col. 4, lines 15-20)."

Only in the Final Action on February 14, 2006 was Tanenbaum even mentioned, but not applied. Specifically, that Final Action stated,

"Tanenbaum (Computer Networks) is cited as background art that shows how networks may be interconnected (including subnets) using differing protocols. This is a basic college textbook that the Examiner considered using to address the arguments but since the claims do not have limitations requiring any of the argued limitations, there is no need to combine this with the Cilurzo reference in a rejection. The applicant is urged to compare figure 1 with Tanenbaum's figure 1-3(a) and figure 4 with Tanenbaum's figures 1-5, 1-6, 1-7 because they appear to show identical protocol environments (with the notable absence of any specific applications such as speech recognition)." (Emphasis added)

In the response to the above action, Applicants' amended the claims in accordance with the agreement with the Examiner to overcome the art of record, Cilurzo, but this amendment (filed May 15, 2006) was refused entry for reasons which still remain unclear.

The instant Final Action is responsive to Applicants' above, previously non-entered, May 15, 2006 response. Thus, Applicants' response of May 15, 2006 has now apparently been entered, and a new rejection is set forth in the instant action citing Tanenbaum as an applied

reference. Why this action is made Final is not understood and hereby traversed. Additionally, Examiner's remarks on Page 5 that "...the applicant's failure to do this earlier is dragging out prosecution unnecessarily" is not understood. The Examiner did not indicate the language required to overcome the Cilurzo reference until the First Rejection, after which the Applicants complied.

Moreover, during the interview Applicants' attorney and the Examiner discussed in general the difference between the Applicants' invention and the prior art as set forth in, for example, Tanenbaum. Specifically, Applicants' attorney pointed to the ASA (discussed claim 8) as a mechanism by which legacy protocols could be utilized by a common application service provider and one or more system transaction managers to parse application specific voice recognition jobs to appropriate speech recognition and transcription engines. It was understood by Applicants' Attorney that if the "same" language was removed from the broad claim, claim 8-10 (incorporating the ASA) would be allowable over Tanenbaum, yet it is not so indicated in this Final Action.

### **III. Finality of the Instant Rejection**

Applicants' traverse the finality of this Final Action. The Examiner has made new rejections over art not previously applied. Applicants' assert that this rejection being made FINAL in that it is improper under MPEP §706.07(a). A new ground of rejection that was not necessitated by Applicants' amendment under 37 C.F.R. §1.116 was introduced. Specifically, it is stated in the MPEP that,

"A second or any subsequent action on the merits in any application or patent involved in reexamination proceedings should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed."

(Emphasis Added).

Specifically, MPEP §904 provides, "The first search should cover the invention as described and claimed, including the inventive concepts toward which the claims appear to be directed." Merely removing the language "the same" does not remove the embodiment where the protocols are "heterogeneous" which has always been in the claim language.

Thus, in accordance with MPEP §706.07(a), and, specifically, the agreed upon action by Applicants in accordance with the written Summary of the Interview (May 15, 2006 attached), Applicants merely acquiesced. Incorporating new language in Claim 8 was an alternative, obviated by removal of the "same" language. Nothing in the amendment of the claims was unanticipated. Therefore, in accordance with MPEP § 904, the filed amendment should have been anticipated in that they were directed by the Examiner.

Moreover, the M.P.E.P. states that the objective of the examination is to provide fairness to Applicants in being able to adequately respond to rejections which should have been made

during the first action so that the record provides issues ripe for appeal. Here, the reference was not even made of record until the first Final Action and not applied until this Final Action. Removal of the finality is requested.

#### IV. The Cited Prior Art

The recitation of difficulties in the prior art, which are resolved by Applicants' invention, is exemplified by the Cilurzo, et al. reference. This reference is a prime example of the prior art to which Applicants refer in their specification. As set forth below in detail, Cilurzo, et al. is solely an ASP which allows utilization of Internet interface (link) between otherwise homogeneous systems. Specifically, Cilurzo, et al. discloses speech recognition software in combination with application specific software on a communication's network wherein voice data from connected users having homogeneous protocol are transmitted to the application software residing on a central server in a linear fashion. Even the use of "chat rooms" is a homogeneous Internet application.

As discussed, the Cilurzo, et al. merely takes a PC speech and transcription system and moves it to a server. Specifically, Cilurzo, et al. states,

"As opposed to the costs involved in the obtaining and maintaining of a computer system with general purpose software, the initial cost and upkeep of specific application software can be prohibitive to the small business entrepreneur, often requiring an initial investment of more than 10 times the cost of the previously mentioned hardware and its bundled general purpose software. Services for maintaining the specific application software can be equally expensive and service may not be immediately available."

"Because of the expense, many small businesses forego the use of excellent available application specific software and develop their own application specific software. This home based software usually is not as good or reliable as the marketed products. Besides being saddled with inferior software such a small user must devote a significant amount of time and energy to the development and upkeep of the user developed software." (col. 1 lines 22-40)

It is clear that the motivation is cost. To solve this problem, Cilurzo, et al. merely moves the larger engine to a server and provides a link and passwords to identify user folders. All the interfaces stay the same. There is not a hint of heterogeneous application protocols in Cilurzo.

This is an obvious ASP system as clearly set forth in the related art of Applicants' specification. Applicants specifically refer to a Cilurzo, et al. type system, in stating,

"Networked application service providers (ASPs) would appear to be the most efficient way to utilize sophisticated speech recognition and transcription engines for large-scale users, especially in the professions. The networked system would comprise an application service provider that

could interconnect application software to high accuracy central speech recognition and transcription engines." (Emphases added)

However, Applicants go on to point out the problem with Cilurzo, et al.

"A barrier to implementation of such centralized systems, however, is that most businesses operate using their own internal "business" and /or system protocol, which include in many cases unique communications and application protocols. These protocols are unique to an entities system or organization, and are not universal in application. These systems are sometimes referred to as "legacy systems" and are very difficult to alter because they are the heart of the internal workings of a business, a computer system, or a hardware interface. For most network users, it is too costly, both in terms of equipment costs and disruptions in electronic communications, to replace a legacy system with a uniform "business" or system protocol merely to support network applications for speech recognition and transcription. Thus, most network systems are unavailable to legacy system users. "It would therefore be advantageous to seamlessly interface network application software and enable powerful speech recognition/ transcription engines to interface with legacy systems." (paragraph 0011)

Likewise, Tanenbaum discloses prior art network architecture. On page 12 he says,

"The set of layers and protocols is called the **network architecture**. The specification of the architecture must contain enough information to allow an implementer to write the program for each layer so that the program will correctly obey the appropriate protocol. Neither the details of the implementation nor the specification of the interfaces are part of the architecture. In fact, it is not even necessary that the interfaces on all machines in a network be the same, provided that each machine can correctly use all the protocols." (Emphasis added).

This is the legacy problem overcome by Applicants as Applicants' attorney set out in the interview. If, as in Cilurzo, all machines in a network have the same interface, then each machine can use all protocols. But, Applicants' claimed invention is directed to overcoming exactly the problem identified by Tanenbaum, where machines cannot use all protocols without additional implementer programs. Specifically, in Applicants' specification this problem is described in the Related Art section.

"Legacy network users must also train employees to operate on a network where the operational commands and language used to communicate with another user can be unique for each user on the network, i.e., one user must, to some extent, understand another users internal entity system protocol. This can make even simple requests to another network user; say for a particular record form generated by transcription, a complex and time-consuming task. Thus, a large amount of skill and testing are needed to establish direct communications between the legacy or business system protocols of two different users. Therefore, a new user is forced to find

ways to adapt its legacy system to the other legacy systems on the network, in order to interact with other network users' records and to transcribe seamlessly from one user to another. This is an expensive process both in terms of time and money...." (Paragraph 0012)

V. **The Rejection under 35 U.S.C. §103**

The Examiner has rejected Claims 1-17 under 35 U.S.C. § 103 as being unpatentable over Cilurzo, et al. (6,434,526) in light of Tanenbaum (computer networks). The Cilurzo, et al rejection is identical to that made in the first action, including the reference to "chat rooms."

As pointed out during the interview, Cilurzo, et al. simply matches a protocol from a client system to an appropriate server that can handle that protocol, as set forth in Tanenbaum. This is exactly what the instant claimed invention was designed to eliminate. The Examiner was in accord at the interview. Everything Cilurzo, et al. refers to is very application specific and requires a matching protocol. The previous rejection actually refers to this.

Thus, the Examiner in rejecting the claims, he merely recites the previous arguments made with respect to Cilurzo and applies Tanenbaum.

The Examiner states that,

"Tanenbaum (Computer Networks) is now applied against the claims showing how networks may be interconnected (including subnets) using differing protocols. It is noted that the applicant's claims fail to include any limitations towards translating a particular "legacy" protocol as was discussed in the interview. Therefore, the claims fail to differentiate the well known abilities of different types of computers, operating systems, etc. to connect to each other over a network (such as the internet) and properly send and receive information. The applicant's arguments during the interview that the invention uses ASA functions to convert between protocols does not appear in the claims. In reviewing the specification, it is noted that pages 27 and 29 indicate that legacy systems rely upon protocols that must be compatible with the Normalized Data Format which is undefined and therefore fails to differentiate over known protocols with known differences that commonly require layers of software to perform translation between them." (Emphasis added)

First, Applicants would point out that claims 8, 9, 10 and particularly claim 17 embody the ASA. That is nowhere found in the prior art. Second the term "Normalized Data Format" is defined in paragraph [0039] "*Normalized Data Format: A uniform internal data format used for handling Speech Information Requests and Responses with System components within the Speech Recognition and Transcription System.; and in paragraph [0031] the Application Service Adapter (ASA)is defined as an application layer within the Speech Recognition and Transcription System that provides an interface among Users, Speech Recognition and Transcription Engines, the System Transaction Manager and other System components by allowing a User's existing*

*application and/or a System components application to communicate with the Transaction Manager. Thus, for example, the ASA provides a bi-directional translation service between the User's Native Communications Protocols/Native Application Protocols and a uniform system protocol, e.g. TCP/IP, used by the System Transaction Manager.* It is respectfully submitted that the Examiner has already agreed that claims 8-10, 16 and 17 are allowable over Cilurzo and Tanenbaum. Third, the Examiner has missed the point in Tanenbaum. Applicants employ a "system transaction manager" to determine the protocol of the user and to match it or convert it to match the system protocol or that of an engine. That is nowhere found in Tanenbaum.

But even without this, Cilurzo and Tanenbaum, in any combination, do not yield Applicants' claimed invention. First, as already admitted by the Examiner, Cilurzo is an obvious ASP system. It requires machines that accept and operate using the same protocol, i.e. the interfaces on all machines in the network are the same, as clearly set forth in the related art of Applicants' specification.

Likewise, Tanenbaum discloses prior art network architecture. On page 12 he says,

"The set of layers and protocols is called the **network architecture**. The specification of the architecture must contain enough information to allow an implementer to write the program for each layer so that the program will correctly obey the appropriate protocol. **Neither the details of the implementation nor the specification of the interfaces are part of the architecture.** In fact, it is not even necessary that the interfaces on all machines in a network be the same, provided that each machine can correctly use all the protocols." (Emphasis added).

This is the legacy problem overcome by Applicants as Applicants' attorney set out in the interview. Applicants' claimed system can handle differing protocols without programming as taught by Tanenbaum. Specifically, in Applicants' specification this problem is described in the Related Art section.

"Legacy network users must also train employees to operate on a network where the operational commands and language used to communicate with another user can be unique for each user on the network, i.e., one user must, to some extent, understand another user's internal entity system protocol. (this is what Tanenbaum says). This can make even simple requests to another network user; say for a particular record form generated by transcription, a complex and time-consuming task. Thus, a large amount of skill and testing are needed to establish direct communications between the legacy or business system protocols of two different users. Therefore, a new user is forced to find ways to adapt its legacy system to the other legacy systems on the network, in order to interact with other network users' records and to transcribe seamlessly from one user to another. This is an expensive process both in terms of time and money...." (Paragraph 0012)

It is, therefore, respectfully submitted that the Examiner has failed to meet the burden of proof of establishing a *prima fascia* case of obviousness as required by the statutes, regulations and case law. Specifically, it is the burden of the U.S. Patent and Trademark Office to establish a *prima facie* case of obviousness by “substantial objective” evidence.

To establish a *prima facie* case of obviousness, the U.S. Patent and Trademark Office must meet three basic criteria. First, the prior art reference (or references when combined), considered as a whole, must teach or suggest all the claimed limitations. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, without the benefit of hindsight afforded by the claimed invention, to modify the reference or to combine reference teachings. Finally, there must be a reasonable expectation of success. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n. 5, 229 U.S.P.Q. 182, 187, n. 5 (Fed. Cir. 1986), MPEP 2141.

As set forth above, the references cited by the Examiner, either alone or in any combination, do not yield all of the elements of Applicants' claimed invention, as amended. No reading of Cilurzo allows a system for the handling of heterogeneous protocol in any manner, much less that claimed by Applicants. Likewise, no reading of Tanenbaum yields the teachings attributed to this reference by the Examiner. In fact, it is contrary. This reference relates generically to platforms and protocols and recites the prior art, i.e. programming for protocol homogeneity. Tanenbaum contrary to the Examiner's position specifically instructs that, “Neither the details of the implementation nor the specification of the interfaces are part of the architecture.” (Page 12 second ¶ lines 4&5).

Moreover, it is respectfully submitted that it is Examiner's burden to specifically show “substantial evidence” that the reference teaches every claimed aspect of the claimed invention. *In re Sang Su Lee* 277 F.3d 1338; 2002 U.S. App. LEXIS 855; 61 U.S.P.Q.2D (BNA) 1430 (2002). Mere conclusionary statements will not suffice. *In re Zurko*, 258 F.3d 1379 (Fed. Cir. 2001).

The Examiner's arguments are based upon conjecture not shown by the references.

For example, the requirement for a “system manager” is met with

“at least one system transaction manager... one of the users employing a first system protocol.. more of the users employing a second system protocol that is different” (taught by his network server 202, figure 3 and internet connection to user 100 which is not limited to any particular computer system - see Tanenbaum, figures 1-3 for well known network topologies which would be obvious implementations for network servers and see Tanenbaum, figures 1-5, 1-6, and 1-7 showing that it would be obvious between applications on different computers within a network to have at least 10 different translations

between seven layers of protocols - of course, it would be obvious that Applications sharing or processing data could have their own protocol requirements as well - see, for example, page 21 of Tanenbaum which has an example of different protocols for transmitting/receiving text such that conversion between character codes, such as ASCII to EBCDIC, might often be useful as well as his recognition that industry specific protocols such as for banking or airline reservation, allow computers from different companies to access each other's data bases when that is needed.)"

Where is the "system transaction manager" in all this argument? It is defined in Applicants' specification and serves a specific function. Server 202 is a network server, not a system transaction manager. If the system of Cilurzo is not required to handle protocols outside of the machine interfaces, then no system transaction manager (ASA) is required. The Examiner continues to fill in the missing gaps in the prior art,

"It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to combine Cilurzo's system with a variety of requests for information because he teaches that his system is for use with any type of application software and computers are capable of handling and providing a great variety of information such as his teachings of radiology (col. 1, line 65-col.2, line 5), Lotus Notes (col. 5, line 21), medical information (col. 5, line 34) or chat sessions (col. 6, line 2). Thus, it would have been obvious to use speech recognition for requests of any information that a computer may manipulate because Cilurzo provides examples to include radiology or more general medical information as well as information that humans send to each other using other software such as Lotus Notes or chat software. " (Emphasis added).

Not only is there no substantial evidence to support this conclusion, it does not yield Applicants' claimed invention. Moreover, the Examiner states Applicants' case, i.e. there is no need to convert any protocol in the Cilurzo system. It is respectfully submitted that Applicants have demonstrated that the statements of the Examiner regarding the individual references, as well as their combination, are conclusionary and do not objectively recite the teachings of these references, either singularly or in combination. Therefore, the Examiner has not met the first element.

Further, it is improper for the Examiner to use hindsight determination in the piece meal application of references to attempt to yield Applicants' invention. It is respectfully submitted that based upon the references and the Examiner's recitation of their teaching, that the Examiner has read the Applicants' specification and then tried to "force fit" these unrelated references into Applicants' claimed method by a mischaracterization and

misreading of the teachings. Therefore, the Examiner has failed to meet the second element. The Examiner states,

“It is also noted that Cilurzo does not explicitly teach that computer users must have different protocols. However, one of ordinary skill in the art of computer networks knows that different users do not all have identical computers, operating systems, computer software applications, etc.” and “Tanenbaum is a basic textbook from 1981 that teaches that it is common to allow networked computers to translate among computers having different protocols to make these differences transparent to the user. This is done by allowing translation between different layers of computer software as illustrated and explained by Tanenbaum using the international standards (ISO) that are now notoriously well known for internet communications.”

Not only is this statement irrelevant, it is incorrect. Neither of the references even remotely relates to the problem solved by Applicants as set out in some 50 pages of specification and claims, as well as 6 figures. The Examiner is impermissibly reading Applicants’ specification into the references.

Finally, there must be a reasonable expectation of success in combining the references cited. It is already been carefully pointed out that Cilurzo does not address systems, which handle heterogeneous protocols outside the system interfaces (and the Examiner in the interview agreed); and, Tanenbaum specifically teaches away from Applicants’ claimed invention in reciting the prior art, i.e. “The specification of the architecture must contain enough information to allow an implementer to write the program for each layer so that the program will correctly obey the appropriate protocol. **Neither the details of the implementation nor the specification of the interfaces are part of the architecture.**”

This is absolutely contrary to the Examiner’s contentions and when combined with Cilurzo does not yield Applicants’ claimed invention. There can be no expectation of success in combining the two references in any manner, in that they are totally unrelated and inoperative to yield the claimed method. Therefore, the Examiner has failed to meet the third element.

For the above reasons, the Cilurzo and/or Tanenbaum references cannot form the basis for an obviousness rejection of Claims 1-17 as amended. Applicants understood during the May 11, 2006 interview that the instant arguments and clarifying amendments to the claim overcame the rejection of the art then of record, Tanenbaum adds nothing to this.

As set forth above, the references cited by the Examiner, either alone or in any combination, do not yield all of the elements of Applicants’ claimed method, as originally amended.

**Conclusion**

Applicants by this amendment have overcome the rejection. It is believed that the application is now in condition for allowance. Entry of the amendment and early and favorable action is solicited.

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